QC2- Inspect parts off machine FAI/FAIB

Memo

110

\*110\*

Quality Control

Work Orde		9058		*990	)58*						Page	1
Revision ID:	D3202-1			Accept	*N900	<b>040</b>	100	<b>)*</b> s	etup Stai	1 71	S1* S2*	
Start Date: Required Date: Reference:	3/27/13 3/27/13	<b>Start Qty:</b> 20.00 <b>Req'd Qty:</b> 20.00	*2( *2(		Cust Item I Customer:	D:						
Approvals:	Process P QC:	lan: MC5	Date: _\3_\0	4-07 Tooling: SPC (Y/N):		ate:		R	un Star Sto		R1* R2*	
Sequence ID/ Work Center II		Operation Description evision Nbr		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
Draw Nbr D3202		ev D	٠.									
100 <b>*1</b> Waterjet		Memo		0.00				20			0AS 05 289	13.05.10
FLOW CNC Waterj	et	1-Cut as per Dwg Rev: Prog Rev: 2-Deburr if	D									

0.00

0.00

									DQ	A: Date	:	
NCR: Y	es / No	1			WORK ORDER NON-C	CON	FORM	MANCE / UPDATE				
		1							QA Close	d: Date	:	
Work Orde	ri:				DISPOSITION			AGAINST	DEPARTMEN	T/PROCESS		
Part N					Rework Scrap Use-as-is		ſ	Skid-tube Crosstube  Machining Small Fab  noforming Finishing		Water Jet od. Eng. Coor. ore/Packaging	Engineering Quality Other	
NCR N	lo	1			Work Order Update	1		Large Fab Composite		Supplier		
Root			1	Descri	ption of work order update	In	itial	Action	Sign &		·	
Cause	Date	Step	Qty	(	or Non-conformance	Chie	ef Eng	Description	Date	Verification	QC Inspector	
Doc/Data		1		-		T						
quip/Tooling		!				1						
Operator	!						:					
Material												
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Other	_				•						`.	
Process							•					
Supplier 🧐						1						
Training	_											
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Landir F	ng Gear			_	General			r	¬		ا ، ا	
	Bending	-			Bend	$\boldsymbol{\vdash}$	Grain	}	Ovalized	<u> </u>	Pressure/Forced	
}	<del></del> 1	Not Conce	ntric to (	O/S	BOM/Route	$\mathbf{H}$	Hardwa 	<b>†</b>		er tolerance	Temperature/Cure	
	Cracks			-	Broken/Damaged	-	-	on Incomplete	Part Incom	<b>}-</b>	Weld	
-		d/Crimped	rimped Burrs		-		ions Incomplete/Unclear	Part Lost/I	_	Wrong Stock Pulled		
	Cuffs		Contamination		$\mathbf{H}$		nance	Part Move				
-	Heat Tr	· —		$\vdash$	Mislabe	· '	Positioned		Joshan			
}	<del></del>	spection Strip in Tube Cut Too Short			-	Misreac	ı [	Power Los	s/surge	Other		
	<b></b>	Ripples in Bend Drill Holes			Offset							
	<b>—</b> 1 `≀	Torque Waves in Extrusion Drawing			Out of Calibration							
		Turning Sequence Finish			Out of Sequence							
	Wave/T	wist in Tube Folio			1 10	Jutside	Outside Dimensions					

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<b>Work Orde</b> March-28-13 10		0058		*990	158*							Page 2
Revision ID:	D3202-1			Accept	*N900	<u>)</u> 040	100	)*	Setup	Start Stop	*NS	\$1* \$2*
Start Date: Required Date: Reference:	3/27/13 3/27/13	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*		Cust Item Customer							
Approvals:		an:		Tooling: _ SPC (Y/N):		Date: Date:			Run	Start Stop	*NF	₹1* ₹2*
Sequence ID/ Work Center II  120  *120  CC  Quality Control	)	Operation Description QC8- Inspect parts - seco	nd check	Set Up/ Run Hours 0.00	Tool ID	Tool #	Plan Code	Accep Qty	ot Rej Qt			Insp. Stamp
*130 *130* HandFinish Hand Finishing		Chemical Conversion Co	at per QS1005 4.1	0.00			a	υχ	J 4	m-f	/ 13/	105/1
140  *140  *nowdercoat  Powder Coating		Grey.Sandtex(Ref:4.3.5.6  Memo START TIM OVEN TEM FINISH TIM	E: 2-,45 PERATURE: 32.	0.00			20	Xy	<i>y</i> 1	M)	113,	<u>/ss/</u> ,

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20 X y M/ 13/05/13

NCR: Y	es /	No <sub>i</sub>				WORK ORDER NON-	COI	NFORI	MANCE / UPDATE		DQA:	Date	e:
											QA Closed:	Date	e:
Work Orde	r:					DISPOSITION			AGAINST	r DE	PARTMENT	/PROCESS	
	Part No.  NCR No.			Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube  Machining Small Fa  Thermoforming Finishir  Large Fab Composit			4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other		
Root Cause		ate	Step	Qty		iption of work order update or Non-conformance		Initial Action Chief Eng Description			Sign & Date	Verification	QC Inspector
Doc/Data	+-	;	Step	Qty		or won comormance	+	iler Eng	Description		Dute	Verification	QC IIISPECTOI
quip/Tooling	$\dashv$												
Operator	1	ĺ											
Material -	7	1					1						
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rocess													
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	Ber	ding				Bend		Grain			Ovalized		Pressure/Forced
	Cer	tre No	ot Concer	ntric to (	o/s	BOM/Route		Hardwa	ire		Over/Under	tolerance	Temperature/Cure
	Cra	cks				Broken/Damaged		Inspect	ion Incomplete		Part Incorred	ct [	Weld
[	Cru	shed/	Crimped			Burrs		Instruct	tions Incomplete/Unclear		Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuf	fs	Contamination				Mainte	enance		Part Moved			
	Hea	t †rea	eat Countersink				Mislabe	eled		Positioned V	Vrong _		
	Ins	pection Strip in Tube Cut Too Short				Misread	d		Power Loss/	Surge	Other		
	Ripples in Bend Drill Holes			Offset									
	Torque Waves in Extrusion Drawing				Out of Calibration								
	Turning Sequence Finish					Out of Sequence							
	Wave/Twist in Tube Folio					Outside Dimensions							

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Work Orde		058		*990	)58*							Page 3	
		Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*	Accept	*N900040100  Cust Item ID:  Customer:		)*	Setup	Start Stop	*N *N	S1* S2*		
Approvals:	Process Pla	n:	Date:	Tooling: _ SPC (Y/N):	Da	-			Run	Start Stop	*N *N	R1* R2*	
Sequence ID/ Work Center II 150 *150* QC Quality Control	D	Operation Description QC3- Inspect Part Finish Memo		Set Up/ Run Hours 0.00	Tool ID	Tool #	Plan Code	Accep Qty	t Rej Qty		Reject Number	Insp. Stamp	00
*160 *160* Packaging Packaging		Identify as per dwg & Stoo	StJ41A	0.00						- //	] 13/0	/19 (-	20

170

QC21- Final Inspection - Work Order Release

0.00

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Memo

0.00

Quality Control

13/5/14 7/ MF 13-5-14

		1								DQA:	Date	:
NCR: Ye	es / No	ì			<b>WORK ORDER NON-</b>	CON	IFORN	MANCE / UP	DATE		· · · · · ·	
										QA Closed:	Date	•
Work Orde	ŕ:	1			DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	o				Rework Scrap Use-as-is	-	1	Skid-tube Machining Moforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other
NCR N	0	İ			Work Order Update	]	Large Fab Composite				Supplier	
Root		1		Descr	iption of work order update	Ir	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chi	ef Eng	Desc	ription	Date	Verification	QC Inspector
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L	Bending			. L	Bend		Grain			Ovalized	_	Pressure/Forced
	Centre N	ot Conce	ntric to (	o/s	_BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks			L	Broken/Damaged	Ш	Inspecti	on Incomplete		Part Incorred	t _	Weld
	Crushed,	/Crimped			Burrs		Instruct	ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	nance		Part Moved		
	Heat Tre	at			Countersink		Mislabe	led		Positioned V	vrong	_
Ī	Inspection	on Strip in	Tube	Γ	Cut Too Short		Misread	l		Power Loss/	Sürge	Other
ľ	Ripples i	n Bend			Drill Holes		Offset					
	Torque \	Torque Waves in Extrusion Drawing		Out of Calibration								
	Turning:	Sequence	!		Finish		Out of S	equence				
	Wave/T	Twist in Tube		П	Outside	Dimensions						

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## **Picklist Print**

March-28-13 10:49:26 AM

Work Order ID:

99058

Parent Item:

D3202-1

Parent Item Name:

Cover

**Start Date:** 3/27/13

Required Date: 3/27/13

**Start Qty: 20.00** 

Required Qty: 20.00

Comments:

IPP Rev:B IPP Rev:C No Longuer Made In House

Now on Waterjet

05-11-06 JLM

07-04-18 JLM

IPP Rev:D chg to revC as per dwg 08-04-21 DD verified by:JLM

	II I RCV.D CI	ig to reve as per	uwg	00-04-21	DD vermed b	y .JL (VI							
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M5052H32S.032		Purchased	No			100	sf	226.7000	1.551	32.652632	1	\ \D . AC	
5052-H32 .032 Sheet											. M	113.03	0 . 10

Loc Oty	Loc Code	
91		105552
91		
135.7		
10.4		
12		
9.5		<del></del>
34.8		
46		
23		
	91 91 135.7 10.4 12 9.5 34.8 46	91 91 135.7 10.4 12 9.5 34.8 46

Page 1

NCR: Y	⁄es	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPD	ATE			
			·					_			QA Closed:	Date:	
Work Orde	er:					DISPOSITION	7			AGAINST DE	PARTMENT,	<b>PROCESS</b> Water Jet	l e
Part N	•					Rework Scrap Use-as-is Work Order Update			Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite	Prod Rec/Stor	Engineering Quality Other	
Root	1			T	Descri	iption of work order update		Initial Action		on	Sign &		
Cause		Date	Step	Qty		or Non-conformance		nief Eng	Descri		Date	Verification	QC Inspector
Doc/Data			,			and the second s	1			•			
Equip/Tooling			<b>.</b>		1		ł						
Operator			-					:					
Material													
Setup					<b>.</b>								
Other				ļ		•							
Process						•							
Supplier						•	ļ						
Training													
Unapproved							İ						
						F	AUI	T CATE	GORY				
Landi	ng G	Bear				General		-			-	<b></b>	
		Bending				Bend		Grain			Ovalized	·	Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route	L	Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks			L	Broken/Damaged	L	Inspecti	on incomplete		Part Incorrec	t	Weld
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/U	nclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		
Heat Treat Countersink			Mislabe	eled	L	Positioned W		•					
Inspection Strip in Tube Cut Too Short			L	Misread	i		Power Loss/S	Surge	Other				
Ripples in Bend Drill Holes				Offset				· .					
	Torque Waves in Extrusion Drawing			Out of Calibration									

Out of Sequence

Outside Dimensions

Date: \_\_\_

Turning Sequence

Wave/Twist in Tube

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

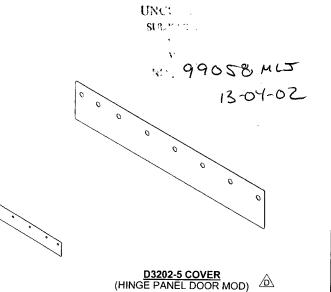
DART AEROSPACE LTD	Work Order:	99058
Description: Cover	Part Number:	D3202-1
Inspection Dwg: D3202 Rev: D		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.38	+0.006/-0.001	0.38	<b>V</b>		V	JKM-01
0.63	+/-0.030	0.648	V		V	0 (7 ( 0 )
3.38	+/-0.030	3.373	1		V	
2.40	+/-0.030	2.395	V		V	·
0.82	+/-0.030	0.818	1		1/	
73.84	+/-0.030	73.84	V		T	5KM-06
74.50	+/-0.030	74.50	1		-	J KM OO
0.032	+/-0.010	0.032	√ √		$\sqrt{}$	
4.03 Pitch	+/-0.030	4.026	./		$\sqrt{}$	
			,		V	

	- As	
Measured by:	Audited by: 27	Preliminary Approval:
Date: 13.05.10	Date: 13.5-15	Date:

Rev	Date	Change	Revised by	Approved
Α	04.02.25	New Issue	KJ/RF	Approved
В	06.09.28	Revised per Rev. B1	KJ/JLM	
С		Dimensions updated per Dwg Rev C	KJ/DD	<del>                                     </del>
D		Dwg Rev updated	KJ KJ	1////



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**D3202-3 COVER** (COMPOSITE DOOR)

ADD -5 FOR HINGE PANEL DOOR MOD. 08.11.03 ADD -3 FOR COMPOSITE DOOR, REFORMAT ENTIRE DRAWING TO SOLIDWORKS STANDARD, INCORPORATE CHANGE B1 (CLARIFY MID-SPAN DIMENSION) AJS 08.03.31 RE-DESIGN PART NOW CURVED CP 03.10.16 NEW ISSUE CP 01.01.01 REV. DESCRIPTION BY DATE DESIGN ı DS DART AEROSPACE LTD DRAWN AJS HAWKESBURY, ONTARIO, CANADA

DRAWING NO. CHECKED REV. D D3202 MFG. APPR. SHEET 1 OF 3 TITLE APPROVED SCALE **COVER** DE APPR. DATE

08.11.03

TOP YEIGHT © 2008 BY DART AEROSPACE LTD

THE DOCUMENT OF PREATH AND CONFERENCE, WHO IS SUMMED OF THE EMPRESS CONCINENT TO THE SECOND OF ANY PROPERTY OF COMPLETE OF CONCURSATION OF ANY OTHER OFFICE.

THE LIGHT OF ANY PROPERTY OF COMPLETE OF CONCURSATION OF THE OFFICE.

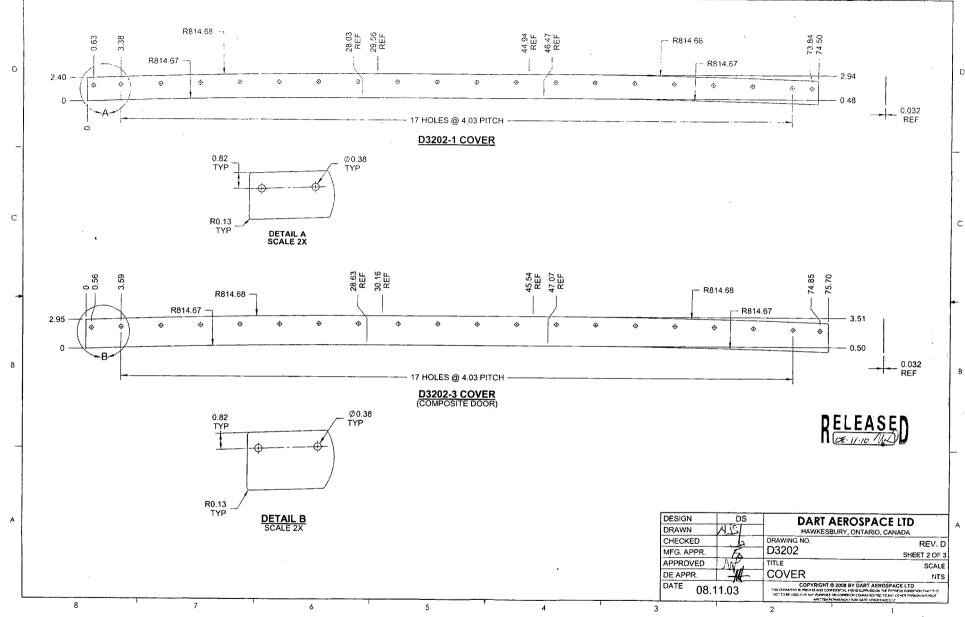
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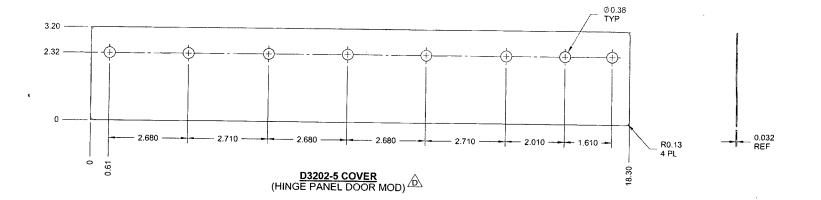
NOTES:
1) MATERIAL: 5052-H32 ALUMINUM SHEET, 0.032 THICK
PER AMS-QQ-A-250/8 OR AMS 4016
REF. DART SPEC M5052H32S.032
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3202-X" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: 0.56 lbs APPROX FOR -3
: 0.61 lbs APPROX FOR -5

D

C

**D3202-1 COVER** 





D

DESIGN	DS	DART AEROSPACE LTD		
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA		
CHECKED	77	DRAWING NO.	REV. D	
MFG. APPR.	En	D3202	SHEET 3 OF 3	
APPROVED	MAY	TITLE	SCALE	
DE APPR.	-#-	COVER	NTS	
DATE 08.1	1.03	COPYRIGHT © 2008 BY DART AEROSPACE LTD  THE DOWNERS IN PRIVATE AND COMPORTIAL AND IS SUPPLED ON THE EXPRESS CONDITION THAT IT IS  NOT TO BE USED FOR ANY PAPORE OR COMPORTING ANY THOUGH DESCONDERS.  WITH THE PRIVATE AND DUTY PROPRESS. THE DAY PROPRIES. TO		